

# ACADEMIC SESSION 2020-2021

## SYLLABUS OF MATHEMATICS FOR CLASS – XII

### PLANNING FOR THE MONTH OF APRIL:-

#### 1<sup>ST</sup> Week (01April to 04 April)

Operation on Matrices: Addition, Subtraction, Multiplication and Multiplication with a Scalar. Simple Properties of Addition, Multiplication and Scalar Multiplication.

Questions based on above articles, two assignments of 10(MCQ) Questions each.

#### 2<sup>nd</sup> Week (06April to 11 April)

Non-Commutativity of Multiplication of Matrices and existence of non-zero matrices whose product is the zero matrix(restrict to square matrices of order 2). Concept of elementary row and column operations. Invertible matrices and proof of the uniqueness of inverse, if it exists; (Here all matrices will have real entries)

Questions based on above articles, two assignments of 10 Questions each (Containing VSA, SA and LA).

#### 3<sup>rd</sup>Week (13April to 18 April)

Two Quizzes of 10 questions (MCQ) will be Conducted.

Introduction of Determinants: Determinants of a square matrix(up to 3x3 matrices), Properties of determinants, minors, co-factors and application of determinants in finding the area of a triangle .

Questions based on above articles, Adjoint and inverse of a square matrix.

#### 4<sup>th</sup>Week (20 April to 25 April)

Consistency , inconsistency and number of solutions of system of Linear equations by examples, solving system of linear equations in two or three variables(having unique solution) using inverse of a matrix.

Questions based on above articles, two assignments of 10 (MCQ) questions each, two assignments of 10 questions each (containing VSA, SA and LA).

#### 5<sup>th</sup>Week (27 April to 30 April)

Some more questions on previous articles.

Introduction of Relations and Functions. Types of relations: reflexive, symmetric, transitive and equivalence relations.

Questions Based on above articles.

#### Faculty Members:

1. Sanjay Kumar Sharma
2. Animesh Bhattacharya